UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/680,767	10/07/2003	Randal Howard Kerstetter III	DN2002161	5233

27280 7590 08/22/2005

THE GOODYEAR TIRE & RUBBER COMPANY
INTELLECTUAL PROPERTY DEPARTMENT 823
1144 EAST MARKET STREET
AKRON, OH 44316-0001

EXAMINER
MIGGINS, MICHAEL C

ART UNIT	PAPER NUMBER
1772	

DATE MAILED: 08/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Office Action Summary	**Application No.** 10/680,767	**Applicant(s)** KERSTETTER III	
	Examiner Michael C. Miggins	**Art Unit** 1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _02 June 2005_.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-17_ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-17_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

REJECTIONS WITHDRAWN

1. All of the 35 USC 112 2nd paragraph, 102(b) and 103(a) rejections set forth in the non-final rejection of 2/4/05, pages 2-6, paragraphs 1-9 have been withdrawn.

REJECTIONS REPEATED

2. There are no rejections repeated.

NEW REJECTIONS

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1 recites a range for mooney viscosity of 23-53. The examiner agrees with applicant's remarks of 6/2/05 that the original disclosure supports ranges for mooney viscosity of either 23-32, 29-36 or 43-53. However, the original disclosure does not provide support for the range of 37-42 since none of the cited materials have a mooney viscosity in a range of from 37-42.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-5, 11-13 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer et al. (US 4309332) in view of Lewis (US 3873494).

With regard to claim 13, the limitation “wherein said composition is peroxide cured” is a method limitation which does not structurally further limit the product claim 1 and therefore has been given little to no patentable weight since method claims are not germane to the patentability of a product claim. However, Fisher et al. does disclose that the composition is peroxide cured (column 3, lines 31-49) (applies to instant claim 13).

Fischer et al. teach an automotive hose (column 1, lines 35-43, since radiator tubing and hose is disclosed) comprising at least one rubber layer comprising from about 60 to about 95 parts by weight of EVM (column 7, lines 16-28, since ethylene vinyl acetate is taught which is what EVM is described as in the instant specification, see page 2, lines 25-29), and from about 5 to about 40 parts by weight of ACM (column 7, lines 16-28, since applicant describes ACM as polyacrylate rubber in the instant specification, see page 3, lines 8-21), wherein said rubber layer comprises from about 80 to about 90 parts by weight EVM and from about 10 to about 20 parts by weight of ACM, wherein said rubber layer comprises from about 70 to about 90 parts by weight EVM and from about 10 to about 30 parts by weight of ACM (column 7, lines 16-28), wherein said EVM comprises from about 40 to about 80 percent vinyl acetate, wherein said EVM comprises from about 50 to about 70 percent vinyl acetate (column 7, lines 16-28), wherein said rubber composition further comprises from about 10 to about 120 phr of carbon black, and wherein said rubber composition further comprises from about 35 to about 90 phr of carbon black (column 4, lines 7-34) (applies to instant claims 1-5 and 11-12).

The difference between the instant claims and Fischer is that Fischer fails to disclose a mooney viscosity of 23-53 for the ACM.

Lewis discloses an ACM with a mooney viscosity of 20-120 (column 2, lines 14-25) in a blend containing EVM (column 1, lines 40-46) for use in automobile cables (column 1, lines 17-24) for the purpose of providing oil-resistance and ease of processability of the ACM since lower viscosity results is easier processing (applies to instant claims 1 and 15-17).

Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided a mooney viscosity of 23-53 for the ACM in the invention of Fischer in order to provide improved oil-resistance and ease of processability of the ACM since lower viscosity results is easier processing as taught or suggested by Lewis.

7. Claims 6-10 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer et al. (U.S. Patent No. 4,309,332) in view of Lewis (U.S. Patent No. 3,873,494), as applied to claims 1-5, 11-13 and 15-17 above, and further in view of Morris et al. (U.S. Patent No. 3,976,610).

Fischer et al. disclose wherein said polymer resin comprises from about 70 to about 90 parts of EVM comprising from about 50 to about 70 percent by weight vinyl acetate, and from about 30 to about 10 parts of ACM (column 7, lines 16-28) (applies to instant claim 14).

Fischer et al. disclose applicant's invention substantially as claimed. However, Fischer et al. fail to disclose wherein said ACM comprises one or more monomers slected from the group consisting of C1-C8 alkyl acrylates and C2-C8 alkoxy C1-C8 alkyl acrylates, wherein said ACM further comprises at least one cure site monomer, wherein said ACM further comprises at least one cure site monomer selected from the group consisting of halogen-containing cure site monomers, epoxy monomers and carboxylate type cure site monomers, wherein said halogen containing monomer is vinyl chloroacetate or 2-chloroethyl vinyl ether, wherein said ACM is a copolymer comprising ethyl acrylate, butyl acrylate, methoxyethyl acrylate, and a cure site monomer.

Morris et al. disclose wherein said ACM comprises one or more monomers slected from the group consisting of C1-C8 alkyl acrylates and C2-C8 alkoxy C1-C8 alkyl acrylates (column 1, line 47 through column 2, line 22), wherein said ACM further comprises at least one cure site monomer, wherein said ACM further comprises at least one cure site monomer selected from the group consisting of halogen-containing cure site monomers, epoxy monomers and carboxylate type cure site monomers, wherein said halogen containing monomer is vinyl chloroacetate or 2-chloroethyl vinyl ether (column 1, lines 39-45 and column 2, lines 23-68), wherein said ACM is a copolymer comprising ethyl acrylate, butyl acrylate, methoxyethyl acrylate, and a cure site monomer (column 1, line 48 through column 2, line 68, since all three acrylates are discloses and the reference says that mixtures of two or more are employed, column 2, lines 9-10) in an automobile hose for the purpose of providing improved weatherability, high temperature serviceability and oil resistance (column 7, lines 18-24) (applies to instant claims 6-10 and 14).

The references are analogous because both are drawn to automobile hoses containing ACM (polyacrylate rubber).

Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided wherein said ACM comprises one or more monomers slected from the group consisting of C1-C8 alkyl acrylates and C2-C8 alkoxy C1-C8 alkyl acrylates, wherein said ACM further comprises at least one cure site monomer, wherein said ACM further comprises at least one cure site monomer selected from the group consisting of halogen-containing cure site monomers, epoxy monomers and carboxylate type cure site monomers, wherein said halogen containing monomer is vinyl chloroacetate or 2-chloroethyl vinyl ether, wherein said ACM is a copolymer comprising ethyl acrylate, butyl acrylate, methoxyethyl acrylate, and a cure site monomer in the polymer composition of Fischer et al. in order to provide improved weatherability, high temperature serviceability and oil resistance as taught or suggested by Morris et al..

ANSWERS TO APPLICANT'S ARGUMENTS

8. Applicant's arguments filed 6/2/05 have been carefully considered but art deemed unpersuasive.

Applicant has argued that Fischer does not teach applicant's recited mooney viscosity for the ACM. However, as discussed above, Lewis discloses applicant's recited mooney viscosity for an ACM.

Applicant has argued that Fischer requires a mooney viscosity of 65 to 115 for the ACM and that Fishcer teaches away from any other mooney viscosity. The examiner respectfully disagrees. Applicant's recited range of mooney viscosity is not that far removed from that of Fischer (a difference of 12 at the upper end of the claimed range). There is nothing in Fischer that directly teaches away from a lower mooney viscosity for the ACM so long as the ACM provides improved mooney viscosity and green strength to the vinyl acetate (column 2, lines 5-15). Since the starting mooney viscosity for the vinyl acetate is only 20 (see Table 1), a mooney viscosity of 50 (taught by Lewis) certainly would improve the mooney viscosity and green strength for the vinyl acetate of Fischer as well as providing improved oil resistance and ease of processability as suggested by Lewis.

In response to applicant's argument that a lower mooney viscosity for ACM of Fischer is forbbiden, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Furthermore, optimization of ranges generally will not support patentability absent a showing of unexpected results (MPEP 2144).

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Miggins whose telephone number is 571-272-1494. The examiner can normally be reached on 1:00-10:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael C. Miggins
Primary Examiner
Art Unit 1772

MCM
August 17, 2005